



# The LOOKOUT

FIRE SAFETY INFORMATION TO KEEP OUR FORESTS HEALTHY AND YOUR PROPERTY SAFE



## DEADLINE FOR MARKING DEAD TREES APPROACHES

**T**ime is running out. Mountain-area property owners with dead, dying or diseased trees on their property have until June 30, 2007, to get their trees marked for removal through the San Bernardino County Hazardous Tree Abatement Program.

The program has significantly reduced the potential for catastrophic wildfires. But the \$70 million in funding from the federal government is due to expire at the end of the year.

Property owners may contact the San Bernardino County Hazardous Tree Abatement Program at (909) 867-1240. Under the tree abatement program, Mountain Area Safety Taskforce (MAST) member agencies have removed more than one million trees over the past five years. Participants in the tree removal program include the County of San Bernardino, San Bernardino County Fire, CAL FIRE, the U.S. Forest Service, the Natural Resources Conservation Service, Caltrans, and Southern California Edison.

"Property owners need to act now, if they want assistance with tree removal," said Assistant Chief Peter Brierty of the San Bernardino County Fire Department.

Prolonged drought has left the forests in the San Bernardino Mountains in a weakened state and suffering from the bark beetle infestation, which continues to kill vast numbers of

trees. MAST, in association with the county fire department, is spearheading the effort to restore the health of the forest and make it more fire resistant by removing dead, dying and diseased trees from areas especially vulnerable to wildfire.

"We do not want a repeat of the catastrophic 2003 Grand Prix and Old fires," Brierty said.

MAST is also shifting its program focus from the removal of dead, dying and diseased trees to thinning live trees, also known as "green fuel," to promote a healthy forest and further reduce the potential for a catastrophic fire.

While the response from property owners to MAST's wildfire prevention efforts has been overwhelmingly positive, many people do not understand the need to remove live trees. The problem fire protection officials face is that not only do live trees burn, the forest is overstocked, with more than 100 to 200 trees per acre, where a healthy forest has 40 to 60 trees per acre. Thinning live trees not only reduces the fire danger, it also frees up resources for the remaining trees, making them healthier, restoring their vigor and making them more resistant to bark beetle infestation.

This does not mean property owners have to clear their land. To achieve the healthy forest goal, only low-value live trees need to be removed. Officials say that typically these are



saplings and trees 8 to 10 inches in diameter or less.

Officials celebrate the felling of the one-millionth dead tree as part of the San Bernardino County Hazardous Tree Abatement Program.



Moreover, thinning live trees also helps property owners create a defensible space around their homes, where officials recommend trees be spaced 20 to 30 feet apart, depending on the ground slope and other factors.

"A thinner forest is a healthier forest, and a healthier forest is a fire-resistant forest," Brierty said.

## CASE STUDY ▶ THIN IS IN: TAKING OUT 'GREEN FUEL'

Phil and Sandy Browne own three adjoining lots, totalling about 1½ acres, in the Angelus Oaks region of the San Bernardino Mountains.

A portion of their property lies on a steep slope rising out of a riparian canyon where the brush cannot be cleared. In the event of a fire, the canyon could create a "chimney effect," driving the fire toward the enclave of houses above. This area is considered vulnerable by fire protection officials. The property was heavily timbered with cedar, oak, spruce and pine.

In 2004, the Brownes thinned the timber and cleared undergrowth on the upper portion of their property as far as the drop-off. But because of the steep slope on the drop-off, the remainder was untouched. In addition, the Brownes were reluctant to have any more live trees removed.

**THE PLAN:** After hearing about the Forest Care program sponsored by CAL FIRE and the San Bernardino National Forest Association, the Brownes chose to participate. Under the program, qualified property owners are reimbursed up to 75 percent of the cost of removing live trees ("green fuel").

A forester identified trees and brush that needed to be removed, then the Brownes obtained bids from private contractors and selected one to perform the work last year.

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FOREST CARE  
(888) 883-THIN

**THE RESULT:** The Brownes paid \$4,100 for 110 small to medium-sized trees (up to 12 inches in diameter) to be removed. They also paid "a little extra" to have the wood cut into smaller pieces and to have some fallen trees removed. The Brownes were reimbursed \$3,075 by the Forest Care Program, reducing their out-of-pocket expense to \$1,025.

Despite their initial reluctance to take out any more trees, the Brownes are glad they did it. "The forest was too thick," Phil Browne acknowledged. "We like it better now. It opened things up a bit and it also helps with fire protection. We are pleased with the result."

## BE PREPARED TO EVACUATE

The potential for a large, damaging fire in the heavily populated mountain forest is severe due to long-term drought and insect-infected trees. Because wildfires can spread faster than anyone can run or even drive, mountain residents and visitors alike need to be ready to evacuate within four to six hours notice.

Being prepared means having an emergency plan and meeting with family members to discuss the dangers of fire and other emergencies. Learn alternate ways out of your neighborhood in case the usual way out becomes blocked. It is critical to be familiar with all the main arteries up and down the mountain. Also, be aware of emergency plans for your child's school or day care center, and discuss how to respond to each disaster that may occur.

Prepare an evacuation checklist and organize the items to be taken during an evacuation. Remember the 4 Ps:

- **PICTURES** — family photos and albums
- **PAPERS** — important personal documents regarding home ownership, insurance, credit cards, cash, etc; and don't forget your eyeglasses or jewelry
- **PRESCRIPTIONS** — all medications you will need for several days
- **PETS** — include food and water, and consider putting them in cages

Prepare an evacuation route map with at least two routes and drive the routes in advance of an actual emergency. Visit the MAST website for a Mountain Area Emergency Route map of your area: [www.calmast.org](http://www.calmast.org).

Taking part in the Forest Care program, Phil and Sandy Browne were able to make their home more fire-resistant by thinning the live trees on their property.





# ABATE AND CREATE: REMOVE FIRE FUELS, FAILURE TO COMPLY MAY RESULT IN FINES AND FEES

In northern climates, the merry month of May is described in nursery rhymes as the time "when green leaves begin to spring." But in Southern California, the merry month marks the end of the rainy season. The leaves of unirrigated grasses and weeds begin to dry out, turn brown and become a fire hazard.

For mountain property owners, this means it's time to clear their property of materials that can fuel a wildfire. Because in June, San Bernardino County Code Enforcement will be singing a different tune — that's when it begins issuing abatement notices, ordering the removal of weeds, hazardous trees and other dead vegetative matter that pose a fire hazard.

Abatement notices can also apply to live trees and vegetation — known as "green fuel" — that constitute a fire hazard due to density or by being "ladder fuels" that can cause a fire to quickly spread.

If an abatement notice is issued, the property will be inspected 30 days later, and if it has not been properly cleared, a warrant is issued. This allows a county work crew to clear the property, and the owner will be fined and required to pay a service fee.

Ultimately fire risk reduction is the responsibility of property owners. Under the law (PRC 4291), mountain property owners are required to create a defensible space around their homes and other structures. This means removing flammable vegetation and any dead or dy-

ing plants within the three fire-safety zones that extend to 100 feet around a home or structure (or to the property line):

**HOME IGNITION ZONE** (10 feet) — Remove all flammable material.

**DEFENSIBLE SPACE ZONE** (30 - 45 feet, depending on the slope) — Reduce the density of vegetation (fuel) and ladder fuels, and those fuels extending from the ground to the tree canopies, and replace hazardous vegetation with less flammable, fire-resistant, irrigated landscape vegetation.

**WILDLAND FUEL REDUCTION ZONE** (70 feet) — Reduce fuel by removing surface litter, logs, stumps and snags, and by trimming or thinning live vegetation.

While the emphasis of fire safety has been on removing dead trees and other vegetative materials, fire protection agencies are now urging property owners to thin live trees as well. This helps to restore the health of the forest and further reduce the risk of a catastrophic fire.

"If people do this themselves, we won't need enforcement," says Assistant Chief Peter Brierty of the San Bernardino County Fire Department.

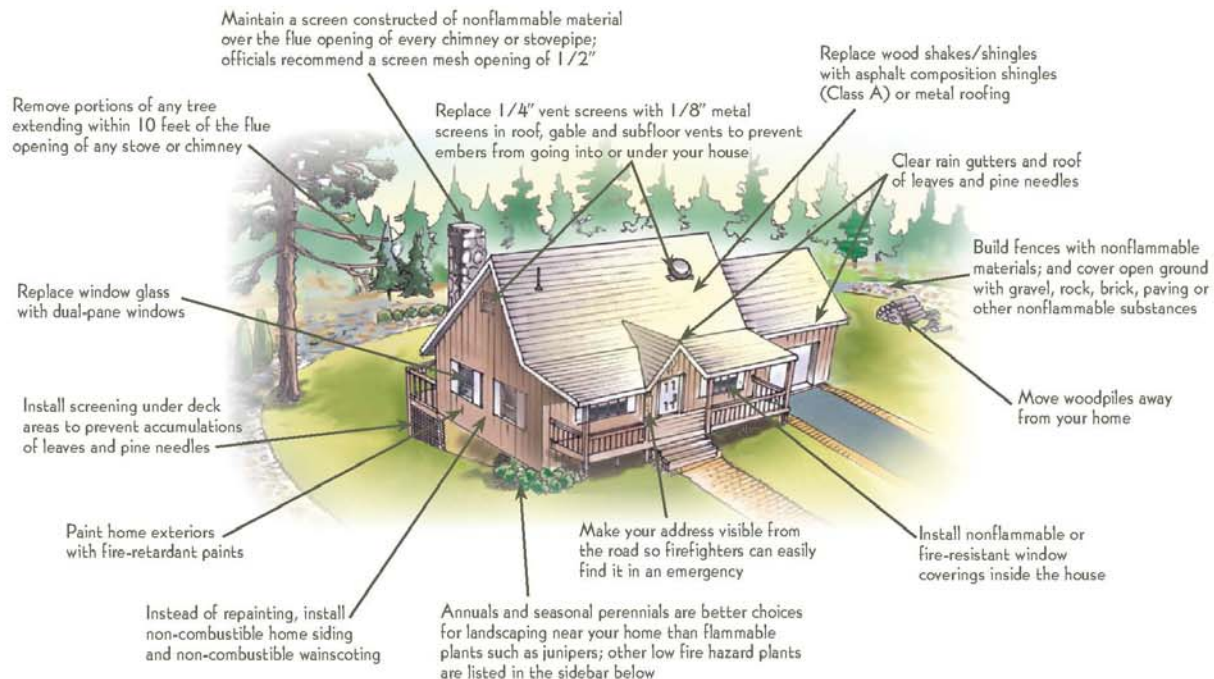
## PROTECTING YOUR HOME FROM FIRE

Fire safety is a critical issue, and making your home more resistant to fire gives firefighters a better chance of protecting your property in the event of a wildfire. Fortunately, there are steps that you can take, many

of them simple and inexpensive, to decrease your home's fire risk. For example, moving flammable materials away from the house and trimming nearby shrubs and trees.

On a larger scale, homeowners can also in-

stall nonflammable roofing, which would transform a home with a 19 percent fire survival rate into a home with a 70 percent survival rate. The diagram below suggests some steps that will make a big difference for the safety of your house.



### PLANTS IDENTIFIED AS BEING A LOW FIRE HAZARD AND HAVING LOW MOISTURE REQUIREMENTS INCLUDE:

Common name	Scientific name
Creeping barberry	<i>Mahonia repens</i>
Creeping sage	<i>Salvia sonomensis</i>
Foothill penstemon	<i>Penstemon heterophyllus</i>
Spreading dogbane	<i>Apocynum androsaemifolium</i>
Mountain dogbane	<i>Apocynum pumilum</i>
Four-wing saltbush	<i>Atriplex canescens</i>
Quail bush	<i>Atriplex lentiformis</i>
Bearberry, kinnikinnick	<i>Arctostaphylos uva-ursi</i>
Brewer saltbush	<i>Atriplex lentiformis breweri</i>
Sea lavender, statice	<i>Limonium latifolium</i>
Showy penstemon	<i>Penstemon spectabilis</i>
Western raspberry	<i>Rubus leucodermis</i>

### TREE REMOVAL/THINNING RESOURCES

For general tree removal advice, including information concerning regulatory requirements, financial assistance programs, and tree removal services in the San Bernardino and San Gabriel mountain areas, contact:

- San Bernardino County Hazardous Tree Abatement Program at (909) 867-1240
- CAL FIRE, Forest Care Program, (909) 881-6900
- The Forest Care partners, the National Forest Association and CAL FIRE, working under a grant from the U.S. Forest Service, will reimburse property owners up to 75 percent of the cost of implementing a qualified plan. Call (888) 883-THIN or complete the form online at: <http://www.sbnfa.com/forestcare.php>

If you have or see trees near power lines, contact your local utility:

- Southern California Edison for information pertaining to its tree removal program at (800) 640-3652 or (800) 655-4555 or online at: <http://www.sce.com/barkbeetle>



# ESTABLISH DEFENSIBLE SPACE



Creating a defensible space helps firefighters protect your home from wildfires.



Fire safety is a community effort: When homes are close together, creating a defensible space means neighbor helping neighbor.

## PLANTING SEEDLINGS NEXT STEP IN FOREST RESTORATION

**T**hinning trees and vegetation on private property and neighboring public land is the first step toward restoring healthy, more fire-resistant forests throughout San Bernardino County, fire-protection officials say.

The next step is to introduce carefully selected seedlings in areas that have burned or been affected by bark beetle infestations. These native trees will help restore the original mixed conifer/hardwood forest, prevent erosion and ensure that the scenic mountainsides synonymous with the San Bernardino County Mountains will be available for future generations to enjoy.

Lake Arrowhead resident Lori Pearson is working with CAL FIRE, ReLeaf, and the Arrowhead Lake Association to further these goals. Pearson, a trained landscape architect, emphasizes the importance of planting trees grown from seeds harvested in the areas where they will be planted.

"Native trees support the natural wildlife of an area and, once established, they do not need supplemental watering," Pearson said. For the San Bernardino Mountains, she recommends such trees as Ponderosa, Jeffrey and Coulter pines. CAL FIRE is growing these and other native trees from local seed stock for reforestation purposes. Larger sizes will be available for homeowners to purchase at local nurseries this spring. Southern California Edison also collects seedlings and donated 20,000 to the program last year.

Pearson is also working with the Arrowhead Lake Association Forest and Property Planning Committee to develop a demonstration garden at the Tavern Bay Beach Club. Scheduled for completion in late spring, the garden will showcase native and adaptable drought-tolerant plants that will thrive in the planting area. Commercially available shrubs and ground covers will be planted as an example for local homeowners.

The garden will exhibit proper spacing for trees to improve fire safety and promote a healthy forest. Proper spacing depends on slope and proximity to structures, but should be natural and avoid understorey plantings. Fire protection officials recommend spacing trees 20 to 30 feet apart, depending on the slope of the terrain.

For further information about the demonstration garden, contact the Arrowhead Lake Association at (909) 337-2595.



Landscape with plants resistant to fire and with low moisture requirements. Officials recommend planting native trees grown from local seedlings and spacing them 20 to 30 feet apart. Do not plant lawns or other high-water-use vegetation around the base of trees. Mulch around trees to discourage weeds and slow evaporation. Build a four-to-six inch earthen dam around the drip line of all trees and shrubs so they retain the water they receive. Train plants to develop deep roots by watering thoroughly but infrequently.

## REPLANT WISELY; HANDS-ON EXPERIENCE

ReLeaf, an organization devoted to developing healthy forests in California, is working to educate the community about appropriate seedling selection and planting. Unlike some non-native trees that require additional watering to survive, native trees do not need special care. For more information about ReLeaf and for contacts and seedling suppliers, call toll-free (866) 923-3473.

Children can also play an important role in the restoration process. The Children's Forest Association has created a hands-on curriculum called Great Seeds Native Plant Restoration Program. Through this program, children can germinate native seeds, monitor the success of restoration projects, and share their knowledge with the community by leading greenhouse tours and educational presentations. For more information on the Children's Forest Association and how to get involved, call (909) 382-2777, or visit: [www.mountaincommunitiesreleaf.org](http://www.mountaincommunitiesreleaf.org).

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# SPRING CLEANING: A CHECKLIST FOR MAKING YOUR PROPERTY FIRE-SAFE

The annual rite of spring cleaning is not just for inside your home. Winter storms typically leave downed tree limbs, leaves and pine needles in their wake, and winter rains give rise to a variety of weeds and grasses that die with the onset of warm, dry weather in late spring.

This dead vegetation constitutes a significant fire hazard and needs to be removed to maintain a defensible space around your home and other structures. You may also want to improve your landscaping with drought-tolerant, fire-resistant plants. Here's a spring-cleaning checklist to help you make your property more fire-safe.

## REMOVE DEAD VEGETATION

- Remove tree limbs, dead branches still attached to plants, dropped leaves and needles.
- Remove all pine needles and leaves from beneath decks and within two feet of any structure. In all other locations, where pine needles cover bare soil and downed trees are embedded in the ground, they should be removed to a thickness of between one and two inches. This helps reduce erosion, conserve water and maintain a healthy forest.

## CUT TALL GRASSES AND WEEDS

- Grass should not exceed four inches in height. In situations where these fuels are isolated from other fuels or where necessary to stabilize soil, grasses and similar vegetation may reach a height of 18 inches.
- Trim or remove ground fuels greater than four inches high. Single specimens of trees or other vegetation may be kept if they are well-spaced, well-pruned and create an overall condition that avoids the spread of fire to other vegetation or to structures.

## ELIMINATE LADDER FUELS

- Ladder fuels include plants or vegetation that allow flames to climb upward like rungs of a ladder into the tree branches above them. Remove the lower fuel layers, such as tall shrubs or small trees, in addition to other low-lying debris beneath trees.
- Raise the height of the upper fuel layer by removing lower tree branches to a height of 6 feet.
- Clearance between shrubs should be 4 to 40 feet depending on the slope of the land and size and type of vegetation.



Remove ladder fuel to keep from creating a crown fire.

## FIRE-SAFE PLANTING

- Consider replacing lawn with low-water-use ground cover and shrubs.
- Do not plant lawns or other high-water-use plants around the base of trees.
- Keep a mix of plant species with varying ages to lessen the chances of severe insect or disease problems and provide better wildlife habitats.
- For a list of recommended trees, shrubs, flowers and ground cover, see "A Landscape Guide for Mountain Homes." To get your copy, call (909) 337-8555 or visit [www.calmast.org](http://www.calmast.org).

# PROPERTY OWNERS TAKE FIRE PREVENTION STEPS, SURVEY SHOWS

Eighty-nine percent of respondents to a recent telephone survey of mountain-area residents and property owners said they had taken steps to protect their property in case of a wildfire. The survey was conducted by San Bernardino County and the Mountain Area Safety Taskforce (MAST) in late December 2006 and early January 2007.

The survey respondents also gave high marks for some of MAST's programs, with 90 percent ranking the education program as "very" or "somewhat" effective and 96 percent said the tree removal program was "very" or "somewhat" effective.

The County and MAST surveyed residents and property owners in the San Bernardino and San Gabriel Mountains to assess their level of fire safety awareness.

According to fire officials, while these results are encouraging, they also show there is still work to be done.

More than 500 mountain property owners participated in the random survey, including residents, non-residents and business owners. Of those, 86 percent said they had cleared brush within 30 feet of their home and structures, or within 100 feet if on a hillside, while 84 percent of the respondents said they had removed dead or dying trees.

These were all important goals of the MAST education program that, over the last five years, was aimed at removing trees killed by bark beetles, reducing fire danger and educating the public about what preventive measures they can take to protect their property from catastrophic wildfires.

During the five-year campaign, roughly one million dead or dying trees were removed with technical assistance and \$70 million in grants from the USDA Natural Resources Conservation Service, as well as other sources. But a new concern has come to light. As the survey noted, only 39 percent of respondents said they had thinned live trees on their land and only 56 percent were aware that trees should be spaced 20 - 30 feet apart. In response to these findings, the campaign will continue with a new goal in mind: educating people about the need to thin the live trees, or "green fuel," on their property.

*The survey results indicate the MAST education program has been successful, but there is still work to be done.*

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